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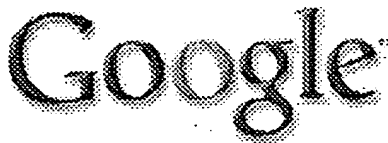
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‡ Barbara G. Ryder †† Rutgers University, Piscataway, NJ, 08854 ‡ IBM ...

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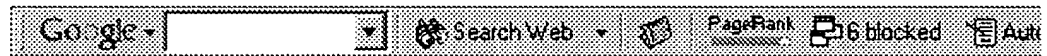
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Online Profiling And Feedback-Directed Optimization Of Java - Arnold ([Correct](#))

Delay-Sensitive Branch Predictors for Future Technologies - Jimenez (2002) ([Correct](#))

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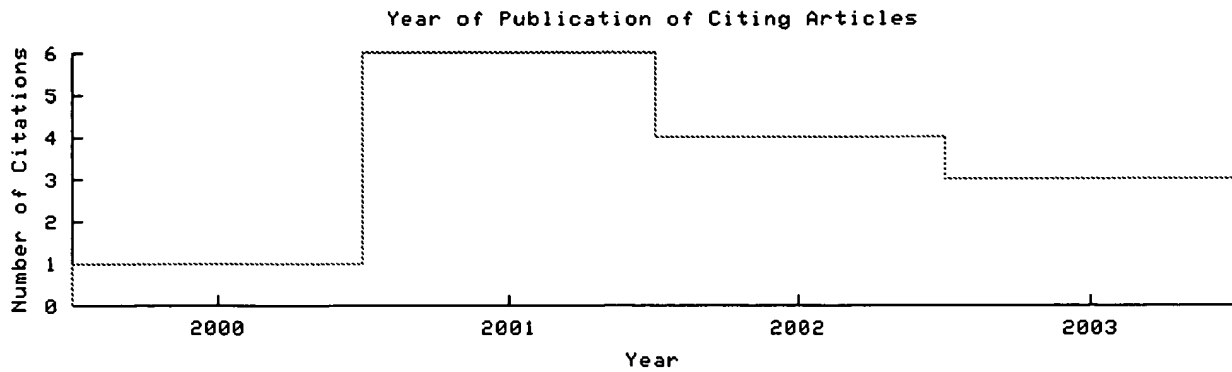
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M. Arnold, S. Fink, D. Grove, M. Hind, and P. Sweeney. Adaptive optimization in the Jalapeño JVM. In Proceedings of the 2000 ACM SIGPLAN Conference on Object-Oriented Programming, Systems, Languages & Applications (OOPSLA '00), pages 47–65, Oct. 2000. <http://citeseer.nj.nec.com/arnold00adaptive.html> [More](#)

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Citations (may not include all citations):

- 651 The Java Language Specification - Gosling, Joy et al. - 1996
- 133 An efficient method for computing static single assignment f.. (context) - Cytron, Ferrante et al. - 1991
- 118 A general approach for run-time specialization and its appl.. (context) - Consel, Noel - 1996
- 109 Efficient implementation of the Smalltalk-80 system - Deutsch, Schiffman - 1984
- 92 Making pure object-oriented languages practical - Chambers, Ungar - 1991
- 82 Branch prediction for free - Ball, Larus - 1993
- 81 effective dynamic compilation (context) - Auslander, Philipose et al. - 1996
- 75 Profile-guided automatic inline expansion for C programs - Chang, Mahlke et al. - 1992
- 60 Profile-guided receiver class prediction - Grove, Dean et al. - 1995
- 46 Dynamo: A transparent dynamic optimization system - Bala, Duesterwald et al. - 2000
- 43 Value profiling - Calder, Feller et al. - 1997
- 40 An evaluation of staged run-time optimizations in DyC (context) - Grant, Philipose et al. - 1999
- 40 DyC: An expressive annotation-directed dynamic compiler for .. - Grant, Mock et al. - 1997
- 34 Practicing JUDO: Java Under Dynamic Optimizations (context) - Cierniak, Lueh et al. - 2000
- 29 Inlining of virtual methods (context) - Detlefs, Agesen - 1999
- 27 and high-level dynamic code generation (context) - Poletto, Engler et al. - 1997
- 26 and, V. C. Sreedhar, H. Srinivasan, and J. Whaley. The Jalap.. (context) - Burke, Choi et al. - 1999
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- 22 Architectural issues in Java runtime systems - Radhakrishnan, Vijaykrishnan et al. - 2000
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- 12 Efficient incremental run-time specialization for free - Marlet, Consel et al. - 1999
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- 11 Dynamic specialization in the Fabius system - Leone, Lee - 1998
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- 4 Quasi-static compilation in Java (context) - Serrano, Bordawekar et al. - 2000
- 4 Combining emulation and binary translation (context) - Hookway, Herdeg - 1997
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